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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,318	05/16/2006	Tatsuro Iwasaki	2950-061389	1885

28289 7590 07/15/2010  
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EXAMINER
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SINGH, SUNIL

ART UNIT	PAPER NUMBER
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3672

MAIL DATE	DELIVERY MODE
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07/15/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,318	<b>Applicant(s)</b> IWASAKI ET AL.	
	<b>Examiner</b> Sunil Singh	<b>Art Unit</b> 3672	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,4,6,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over German document (DE10057041) in view of Skogberg et al. '889 or Skogberg et al. '317.

German document discloses a steel pipe rockbolt (see Fig. 1), comprising a rockbolt main body (12, see marked up Fig. below) and a pressurized-fluid-introducing sleeve (10,17, see marked up Fig. 1 below) fixed to the rockbolt main body at an end for introduction of a pressurized fluid, wherein the rockbolt main body is a deformed pipe having an expansive groove (see Figs. 2-4) extending along an axial direction of the deformed pipe, and wherein the rockbolt main body is configured to hydraulically expand upon the introduction of the pressurized fluid, the pressurized-fluid-introducing sleeve comprising a projecting part (see marked up Fig. below) with an outer diameter larger than a diameter of an aperture (20) of a bearing plate (see marked up Fig. below) and a pressurized-fluid-introducing hole (21), and a bearing-plate-holding part (see marked up Fig. below) with an outer diameter smaller than the diameter of the aperture of the bearing plate, the projecting part and the bearing-plate-holding part defining a passageway, a portion of the expansive groove of the rockbolt main body being

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positioned within the passageway, whereby the bearing plate is held in contact with a step between the projecting part and the bearing-plate-holding part, whereby the bearing plate locates on an edge of a rockbolt-setting hole drilled in a bedrock or ground, and the bearing-plate-holding part extends through the aperture of the bearing plate into the rockbolt-setting hole. German document discloses the invention substantially as claimed. However, German document is silent about the sleeve being fixed by welding to the rockbolt main body. Further, German document is silent about the projecting part and the bearing-plate-holding part being a single, one-piece unitary construction, the projecting part being fixed relative to the bearing-plate-holding part. Skogberg et al. '899, '317 both disclose a sleeve fixed by welding (see col. 3 lines 3-4, col. 3 lines 5-6) to a rockbolt main body. It would have been considered obvious to one of ordinary skill in the art to modify German document by fixing the sleeve to the rockbolt via welding as taught by either Skogberg et al. '899 or '317 since such a modification would prevent the unwanted longitudinal movement between the parts. Further, it would have been considered obvious to one of ordinary skill in the art to modify German document so as to have the projecting part and the bearing-plate-holding part be a single, one-piece unitary construction, the projecting part being fixed relative to the bearing-plate-holding part since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). With regards to claim 2, it would have been considered obvious to modify German

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document to have a circumferential groove on the projecting part since such a modification allows for gripping of the sleeve during assembly.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over German document in view of Skogberg et al. '889 or Skogberg et al. '317 as applied to claim 1 above, and further in view of Japanese document (JP2003206698).

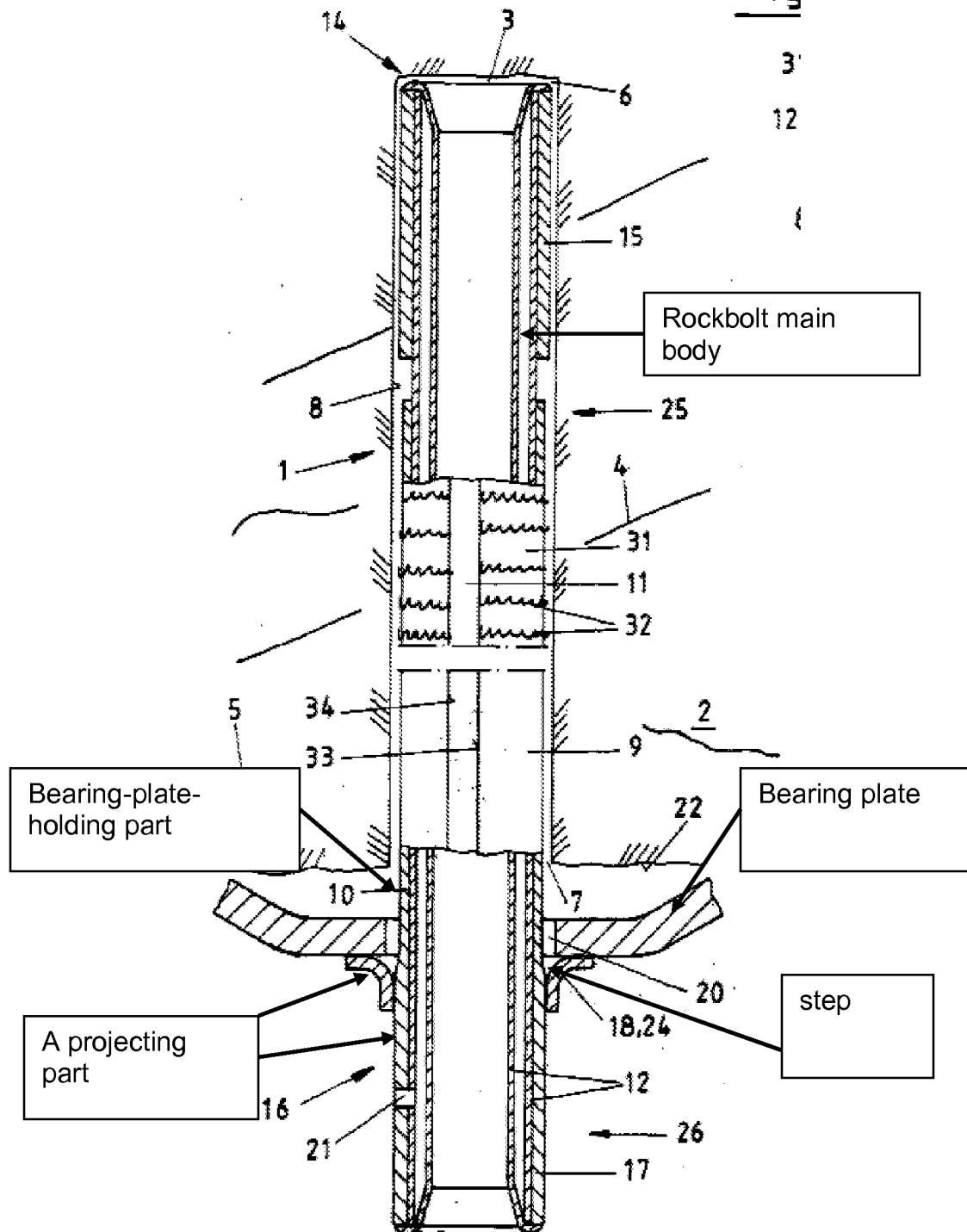
German document (as modified) above discloses the invention substantially as claimed. However, the (above modified) German document is silent about the rockbolt main body is formed from a steel pipe coated with a Zn, Zn-A1 or Zn-A1-Mg plating layer.

Japanese document teaches a rockbolt main body is formed from a steel pipe coated with a Zn, Zn-A1 or Zn-A1-Mg plating layer (see abstract). It would have been considered obvious to one of ordinary skill in the art to further modify the (above modified) German document to have the rockbolt main body formed from a steel pipe coated with a Zn, Zn-A1 or Zn-A1-Mg plating layer as taught by Japanese document in order to reduce/prevent corrosion.

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Fig.1

Fig



***Response to Arguments***

4. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sunil Singh/  
Primary Examiner, Art Unit 3672

Sunil Singh  
Primary Examiner  
Art Unit 3672

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7/14/10